

Receiving Report

Date: 17-5-10

Batch No: 137480

Supplier: Memroe

Dart P/O: 35967

Packing Slip: Yes ☐ No ☐
 Invoice: Yes ☐ No ☐
 Receipt: Cash ☐ Cr ☐
 New Supplier Yes ☐ No ☐

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☒ No ☐
 Shipment Complete: Yes ☐ No ☒ N/A ☒
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

SP

Production/Admin:

Date

Received/Costing

Initial

Location



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO35967**

Purchase Order Date 4/13/2017

PO Print Date 4/13/2017

Page Number 2 of 7

Order From :

MONROE AEROSPACE
399 EAST DRIVE
MELBOURNE, FLORIDA 32904
USA

VU-EC001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

1-321-727-0047

Ship To Contact

Ship To Phone

Ship Via:

FedEx Economy collect

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

USD

FCA - (Free Carrier)

Line Total:

\$8.40

4 AN4-41A

Bolt

4/19/2017

Yes

4/19/2017

40.00

Each

\$0.84

\$33.60

Line Total:

\$33.60

5 AN4-44A

Bolt

4/19/2017

Yes

4/19/2017

FN

20.00

Each

\$0.86

\$17.20

Line Total:

\$17.20

6 AN4-51A

Bolt

4/19/2017

Yes

4/19/2017

FN

100.00

Each

\$3.10

\$310.00

Line Total:

\$310.00

Note:

4/13/2017

5917-4-19

Rec'd 16x

over
ab

341



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35967

Purchase Order Date 4/13/2017

PO Print Date 4/13/2017

Page Number 3 of 7

Order From :

MONROE AEROSPACE
399 EAST DRIVE
MELBOURNE, FLORIDA 32904
USA

VU-EC001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

1-321-727-0047

Ship To Contact

Ship To Phone

Ship Via:

FedEx Economy collect

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

USD

FCA - (Free Carrier)

7 AN4-6A

BOLT

4/19/2017 FN
Yes
4/19/2017

400.00
Each

\$0.14

\$56.00

Line Total:

\$56.00

8 AN5-30A

BOLT

4/19/2017
Yes
4/19/2017

25.00
Each

\$0.60

\$15.00

Line Total:

\$15.00

9 AN5-32A

Bolt

4/19/2017
Yes
4/19/2017

80.00
Each

\$0.68

\$54.40

Line Total:

\$54.40

Note:

4/13/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35967

Purchase Order Date 4/13/2017
PO Print Date 4/13/2017

Page Number 2 of 7

Order From :

MONROE AEROSPACE
399 EAST DRIVE
MELBOURNE, FLORIDA 32904
USA

VU-EC001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

1-321-727-0047

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

FedEx Economy collect

Buyer

Customer POID

Customer Tax

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

USD

FCA - (Free Carrier)

AN4-41A ✓

Bolt

4/19/2017

Yes

4/19/2017

40.00

Each

Line Total:

\$8.40

\$0.84

\$33.60

N4-44A ✓

Bolt

4/19/2017 FN

Yes

4/19/2017

20.00

Each

Line Total:

\$33.60

\$0.86

\$17.20

S1A ✓

Bolt

4/19/2017 FN

Yes

4/19/2017

100.00

Each

Line Total:

\$17.20

\$3.10

\$310.00

Recs 16x.

SP17-4-19.

Line Total:

\$310.00

Recs 84x SP17-510

4/13/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO35967

Purchase Order Date 4/13/2017

PO Print Date 4/13/2017

Page Number 3 of 7

Order From :

MONROE AEROSPACE
399 EAST DRIVE
MELBOURNE, FLORIDA 32904
USA

VU-EC001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

1-321-727-0047

Ship To Contact

Ship To Phone

Ship Via:

FedEx Economy collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

10127-2607

Customer Tax #

Net 30

Terms

Currency

USD

FOB

FCA - (Free Carrier)

7 AN4-6A ✓ BOLT ✓ 4/19/2017 FN 400.00
Yes Each
4/19/2017

400.00
Each

\$0.14

\$56.00

Line Total:

\$56.00

8 AN5-30A ✓ BOLT ✓ 4/19/2017 FN 25.00
Yes Each
4/19/2017

25.00
Each

\$0.60

\$15.00

Line Total:

\$15.00

9 AN5-32A ✓ Bolt ✓ 4/19/2017 FN 80.00
Yes Each
4/19/2017

80.00
Each

\$0.68

\$54.40

Line Total:

\$54.40

Note:

4/13/2017



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO35967**

Purchase Order Date 4/13/2017

PO Print Date 4/13/2017

Page Number 7 of 7

Order From :

MONROE AEROSPACE
399 EAST DRIVE
MELBOURNE, FLORIDA 32904
USA

VU-EC001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

1-321-727-0047

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

FedEx Economy collect

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

USD

FCA - (Free Carrier)

20 MS27039-4-06

Screw

4/19/2017

Yes

4/19/2017

50.00

Each

\$0.13

\$6.50

Line Total:

\$6.50

21 71401-45

PROCUREMENT
QUALITY CLAUSES

4/19/2017

No

4/19/2017

1.00

\$0.00

\$0.00

Line Total:

\$0.00

PO Total:

\$937.81

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT

A033 STATEMENT OF CONFORMITY/TEST RECORDS

FOR NAS, AN and MS FASTENERS

A040 NOTIFICATION OF QUALITY ESCAPE

A041 QUALITY MANAGEMENT SYSTEM

A043 RETENTION OF QUALITY DOCUMENT

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr:

1

Change Date:

4/13/2017



CERTIFICATE OF CONFORMITY

NO: 599287

BILL TO:

DART AEROSPACE LTD.
ACCTS. PAYABLE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

SHIP TO:

DART AEROSPACE LTD.
ATTN: RECEIVING
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7

CUSTOMER PO	SHIP DATE	AIRWAY BILL/TRACKING #
PO35967	5/5/2017	665765288313

PART NO:	Description	CND	QTY	S/L	
AN4-44A REV: 3	BOLT UNDRILLED Customer Reference:	NE	20	13	LOT: 13830 MFR: AFC
AN4-51A REV: 3	BOLT UNDRILLED Customer Reference:	NE	84	25	LOT: 14474 MFR: AFC
AN5-30A REV: 1	BOLT UNDRILLED Customer Reference:	NE	25	18	LOT: 11125 MFR: AFC

CONDITIONS: NE - New OH-OVERHAULED RP-REPAIRED SV-SERVICEABLE

We hereby certify that the items that are a part of this Purchase Order have been visually & dimensionally found to conform to all applicable standards, drawings & specifications. The liability of ECAS, LLC is limited to replacement of any item which is rejected because of a defect in material or workmanship if notified within 30 days & liability shall not exceed the invoice value. Such replacement shall constitute satisfaction of all liability.

SIGNED:

For and on behalf of ECAS, LLC dba MONROE AEROSPACE

ECAS, LLC dba MONROE AEROSPACE
399 EAST DRIVE MELBOURNE, FL 32904 PH: 800.330.3975

**2655 Harrison Ave. SW
Canton, Ohio 44706-3047
Phone: 330-430-6190
Fax: 330-430-6199**

CERTIFICATE OF CONFORMANCE

ECAS

I Hereby Certify that on **04/25/17** Airfasco Industries provided the supplies called for by Contract/ PO Number **FL79288** in accordance with all applicable requirements for shipment. I further state that the process certifications are in conformance with the contract requirements, including specifications and/or drawings, physical item identification (part number) and the quantity shown on this or attached acceptance document. The part numbers certified below have been manufactured in the United States. DFAR 252.225-7009 compliant in fastener base raw material melt source only, with heat number and country, does not include the post cadmium metal plating.

Quality Assurance Representative


WM. DENT

[illegible]



AIRFASCO

INDUSTRIES

MANUFACTURER OF AEROSPACE PRODUCTS

2655 HARRISON AVE. SW
CANTON, OH 44706
PHONE: (330)430-6190
FAX: (330)430-6199

PHYSICAL AND CHEMICAL CERTIFICATION

DATE MFG.: 11/10/16

PART NO.: AN4-44A per NASM4-44A rev. 3

AFC LOT NO.: 13830

QTY MFG.: 54.409

PROCUREMENT SPECIFICATION: Produced per NASM 6812

HEAT TREAT

VENDOR: Brite Metal

CERTIFICATION NO.: 134675

PROCUREMENT SPECIFICATION: Heat Treat per AMS-H-6875

PLATING

VENDOR: Berlinger Plating

CERTIFICATION NO.: 41751

PROCUREMENT SPECIFICATION: Cadmium Plate per AMS QQ-P-416, Type II, Class 2

MATERIAL

MILL: Ivaco

COUNTRY OF MELT: Canada

HEAT: A82639

GRADE SPECIFICATION: Alloy Steel per AMS 6300 E, Type 4037, .275"

4037 MATERIAL CHEMISTRY

ELEMENT-ID.	-C-	-MN-	-P-	-S-	-SI-	-NI-	-CR-	-MO-	-CU-	-AL-	Other
LADLE	.370	.790	.013	.009	.220	.040	.080	.216	.080	.005	

PHYSICAL PROPERTIES

PHYSICAL	TENSILE	YIELD	SHEAR	HARDNESS
REQUIRED	4,080 lbs.	3,130 lbs.	3,680 lbs.	HRC 26-32
ACTUAL	5,309 lbs.	4,705 lbs.	4,042 lbs.	HRC 29-32

We hereby certify that the above data is correct and that the fasteners have been manufactured and inspected in accordance with Airfasco Industries quality requirements.

QS-082
Rev 0
2/15

Airfasco Industries
Quality Assurance Representative:


T. West



MILL TEST CERTIFICATE

IVACO ROLLING MILLS LP

P.O. BOX 322, L'ORIGNAL, ONTARIO, CANADA K0G 1K0
TEL: (813) 875-4871 FAX: (813) 875-6858

10700 0001 AIRFASCO C/O BCS MAPLE HEIGHTS
5800 STERLING AVENUE

MAPLE HEIGHTS (OH) 44137

ATTENTION: Dennis Dent

FAX: (330) 430-8199



ISO 9001:2000



NVLAP
Lab Code 200143-0

Certificate # 004227

Date Rolled 29-Jun-2006

Date Chemical Analysis Performed 20-Jun-2006

P.O. Number	Order Number	Heat Number	Customer Spec.	Spec Rev. No.	Customer Part No.	Billet Order	Grade	Diameter
40083	10105350	A82839	4037SKFO			227834	403TV	7.00 mm
Heat Analysis								
	C	Mn	P	S	Si	Cu	Ni	Cr
Spec. Min.	.35	.70			.15			.200
Actual	.37	.79	.013	.009	.22	.08	.04	.080
Spec. Max.	.40	.90	.020	.020	.30	.20	.10	.100

This is to certify that heat number A82839 is in conformance with the required specifications.

Heat analysis obtained by test methods ASTM E415 and ASTM E1019.
Minimum and maximum refer to the required customer specification.
This is to certify that the material is in conformance with the required specifications.
Radioactive emissions are at background levels.

CONTROLLED

RECEIVED

JUN 29 2007

Jordan

APPROVED BY:

W. B. Berg
Supervisor, Chemistry Laboratory and Billet Inspection

ISSUED BY QUALITY ASSURANCE:

Date: 30 Jun 2006

Elaine D.
Specification Clerk

This certificate shall not be reproduced except in full, without the written approval of Ivaco Rolling Mills Inc. This certificate is not to be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.
NVLAP only covers the chemistry presented within this certificate. All other data is not covered by the NVLAP certification.

Page 1 of 1

P.1/2

Tel: 330 430 6199

6136756866

JUN-30-2006 18:29 From: IVACOROLLING



A DIVISION OF J.T. ADAMS CO., INC.

4520 WILLOW PARKWAY
CLEVELAND, OHIO 44125
PHONE (216) 641-3290
FAX (216) 641-1223
www.tensile.com

CERTIFIED TEST REPORT

Airfasco Industries Inc
2655 Harrison Ave SW
Canton OH 44706

Job No.: B2-119-158
Date: 5-8-12
Cust. PO#: 43041

Description: 1 sample Mill: Ivaco Country of Melt: Canada

Material: 4037 UNS G4037 Heat# A82639

Spec: AMS 6300E

TEST RESULTS

Product Analysis of Elements in % (OES per TTML C-01):

	<u>Actual</u>	<u>Requirements</u>
Carbon	0.36	0.35-0.40
Manganese	0.80	0.70-0.90
Phosphorus	0.015	0.035 Max.
Sulfur	0.010	0.040 Max.
Silicon	0.22	0.15-0.35
Chromium	0.08	0.20 Max.
Nickel	0.05	0.25 Max.
Molybdenum	0.22	0.20-0.30
Columbium	0.002	N/A
Aluminum	0.007	N/A
Copper	0.08	0.35 Max.
Vanadium	0.02	N/A
Titanium	0.002	N/A

The above conforms to specifications listed.


Authorized Agent



Page 1 of 1

This Report May Not Be Reproduced Except In Full

This report represents Tensile Testing interpretation of the results obtained from the test and is not to be construed as a Warranty or Warranty of the condition of the materials tested. Tensile Testing shall not be held liable for misinterpretation of conditions, loss, damage, injury or death arising from or attributable to delay preceding a test or subsequent to performance of a test.

CERTIFICATION OF PROCESS

BRITE METAL TREATING, INC.
8640 BESSEMER AVENUE
CLEVELAND, OHIO 44127

CUSTOMER: AIRFASCO INDUSTRIES, INC.

2655 Harrison Ave., S.W.

Canton, OH 44706

THIS IS TO CERTIFY THAT BRITE METAL TREATING INC. HAS PROCESSED THE FOLLOWING MATERIAL IN ACCORDANCE WITH MOST WIDELY ACCEPTED METALLURGICAL PROCEDURE.

AFC P.O. NO. 16312 WEIGHT 3,713# NO. BINS 5

DESCRIPTION AN4-54A LOT NO. 13830 HEAT NO. - A823639

BMT ORDER NO: B- 134675 Core Hardness Specifications: 28-32RC

DATE RECEIVED 10/20/06 DATE SHIPPED 10/24/06

HEAT TREATING TEST RESULTS

NUMBER OF SAMPLES 15 pcs

CORE HARDNESS 29-32RC

RECEIVED

OCT 26 2006

Gordal

INSPECTOR *U.C.*

SIGNED *[Signature]*

TITLE C.E.O.

DATE 10/25/06

CERTIFICATE OF COMPLIANCE

Approved by Bruce Hogle
Revision Date: 3-9-04

SUPPLIER: **BERINGER PLATING, INC.**
1211 DeValera Ave.
Akron, OH 44310

CUSTOMER: Airfasco Industries, Inc.

Purchase Order Number 16336

Part Number AN970-7

Rev.

Lot Quantity 2,236 lbs.

RECEIVED

OCT 30 2006

Specification Cad/QQ-P-416F Amendment 3 Ty 2 Cl 2

Coating thickness .0003"

Baking (if required) N/A Hours at F

Inspection Level to applicable standard:

ACC. X

S-3 of MIL.-STD.-105D: 4 %

ASTM B602 Table II: 1.50%

Aircraft Braking System 1%

Certified By:

James Beringer Jr.
James Beringer Jr.
President

Date: 10/30/06

41791

13867

AIRFASCO Industries

2655 Harrison Avenue SW Canton, OH 44706

Nondestructive Testing Certification Wet Fluorescent Magnetic Particle Inspection Technique

Part Data

Part Number	Lot Number	Dimensions	Part Description
AN4-44A	13830	1/4 - 28 X 4 17/32	BOLT- MACHINE, AIRCRAFT

Reference Data

Specification	Procedure Number	Acceptance Criteria
ASTM E1444	MT-1	NASM6812

Inspection Equipment Data

Model Number	Manufacturer	Serial Number
H-800 Retro	Magnaflux Corporation	91R00150

Inspection Material Data

Particles	Mfr	Batch No.	Carrier	Mfr	Batch No.
14A	Magnaflux	16A065	MG II	Magnaflux	16B084

Technique Data

Type Current	Circular Field		Longitudinal Field	
	Headshot Amps	Central Conductor Amps	Coil shot Amps	Coil Turns
FWDC	170	N/A	480	5

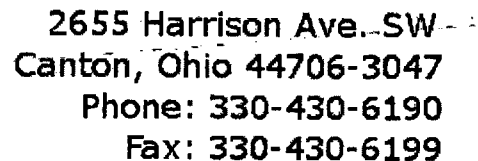
Particle application by the flow method, continuous technique
Demagnetization performed by the AC Coil method, Residual field +/- 3

Inspection Results

Lot Size	Inspection Sample Size	Quantity accepted	Quantity rejected
54409	80	80	0

Notes:

Performed by / Level	Reviewed & Approved by:	Date
<i>J. Parker</i> J. PARKER NDT LEVEL II	<i>TIM WEST</i> TIM WEST QUALITY MANAGER	11/10/16



ECAS

Quality Assurance Representative


WM. DENT

[illegible]



AIRFASCO

INDUSTRIES

MANUFACTURER OF AEROSPACE PRODUCTS

2655 HARRISON AVE. SW
CANTON, OH 44706
PHONE: (330)430-6190
FAX: (330)430-6199

PHYSICAL AND CHEMICAL CERTIFICATION

DATE MFG.: 08/03/14

PART NO.: AN4-51A per NASM4-51A rev. 3

AFC LOT NO.: 14474

QTY MFG.: 19,973

PROCUREMENT SPECIFICATION: Produced per NASM 6812

HEAT TREAT

VENDOR: Brite Metal

CERTIFICATION NO.: B-135362

PROCUREMENT SPECIFICATION: Heat Treat per MIL-H-6875 H

PLATING

VENDOR: Berlinger Plating

CERTIFICATION NO.: 45271

PROCUREMENT SPECIFICATION: Cadmium Plate per QQ-P-416, Type II, Class 2.F

MATERIAL

MILL: Ivaco

COUNTRY OF MELT: Canada

HEAT: A85463

GRADE SPECIFICATION: Alloy Steel per AMS 6300 E, Type 4037, .275"

4037 MATERIAL CHEMISTRY

ELEMENT-ID.	-C-	-MN-	-P-	-S-	-SI-	-NI-	-CR-	-MO-	-CU-	-AL-	Other
LADLE	.370	.790	.010	.008	.210	.030	.090	.219	.090	.005	

PHYSICAL PROPERTIES

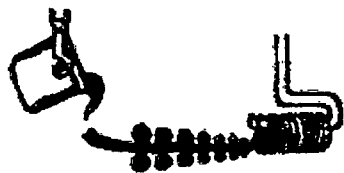
PHYSICAL	TENSILE	YIELD	SHEAR	HARDNESS
REQUIRED	4,080 lbs.	3,130 lbs.	3,680 lbs.	HRC 26-32
ACTUAL	5,316 lbs.	4,777 lbs.	4,240 lbs.	HRC 29-31

We hereby certify that the above data is correct and that the fasteners have been manufactured and inspected in accordance with Airfasco Industries quality requirements.

Airfasco Industries

Quality Assurance Representative:


T. West



MILL TEST CERTIFICATE

IVACO ROLLING MILLS LP

10700 0001 **AIRFASCO C/O BCS MAPLE HEIGHTS**
5800 STERLING AVENUE

MAPLE HEIGHTS (OH) 44137

ATTENTION: Dennis Dent

FAX: (330) 430-6199

P.O. BOX 322, L'ORIGNAL, ONTARIO, CANADA K0B 1H0

TEL: (513) 875-4871 FAX: (513) 875-6888



NVLAP
Lab Code 200143-0

Date Rolled 04-Feb-2007

Date Chemical Analysis Performed 20-Jan-2007

P.O. Number	Order Number	Heat Number	Customer Spec.	Spec Rev. No.	Customer Part No.	Billet Order	Grade	Diameter																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
40351	10108449	A85483	4037SKFG			237789	4037V	7.00 mm																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	N	B	V																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</

This is to certify that heat number A85483 is in conformance with the required specifications.

Heat analysis obtained by test methods ASTM E415 and ASTM E1019.

*Minimum and Maximum refer to the required customer specification.
This is to certify that the material is in conformance with the required specifications.
Radioactive emissions are at background levels.

43.720 lb
ACTUAL
REBAR

.275"

RECEIVED

FEB 06 2007

Goodman

APPROVED BY:

W. B. B...
Supervisor, Chemistry Laboratory and Billet Inspection

ISSUED BY QUALITY ASSURANCE:

Date: 5 Feb 2007

Elaine O.
Specification Clerk

This certificate shall not be reproduced except in full, without the written approval of Ivaco Rolling Mills Inc. This certificate is not to be used by the client to claim product endorsement by NVLAP or any agency of the U. S. Government.
NVLAP only covers the chemistry presented within this certificate. All other data is not covered by the NVLAP accreditation.

Page 1 of 1

13/6/5-0866

O A ROD MLL

11-43-54

02:06:2007

1/1



A DIVISION OF J. F. ADAMS CO., INC

4520 WILLOW PARKWAY
CLEVELAND, OHIO 44125
PHONE (216) 641-3290
FAX (216) 641-1223
www.tensile.com

CERTIFIED TEST REPORT

Amended Copy: 7-22-14

Airfasco Industries Inc.
2655 Harrison Ave. SW
Canton OH 44706

Job No.: B4-195-040
Date: 7-17-14
Cust. PO#: 61099

Description: 1 sample Mill: Ivaco Country of Melt: Canada
Material: 4037 Heat# A85463
Spec: AMS 6300E

----- TEST RESULTS -----

Product Analysis of Elements in % (OES per TTML C-011 & Leco per TTML C-02E):

	<u>Actual</u>	<u>Requirements</u>
Leco Carbon	0.39	0.35-0.40
Manganese	0.76	0.70-0.90
Phosphorus	0.023	0.040 Max.
Sulfur	0.015	0.040 Max.
Silicon	0.22	0.15-0.35
Chromium	0.10	0.20 Max.
Nickel	0.04	0.25 Max.
Molybdenum	0.21	0.20-0.30
Columbium	0.004	N/A
Aluminum	<0.002	N/A
Copper	0.10	0.35 Max.
Vanadium	0.02	N/A
Titanium	0.002	N/A

The above conforms to specifications listed.

T. J. Adams
Authorized Agent



Page 1 of 1

This Report May Not Be Reproduced Except In Full

This report represents Tensile Testing interpretation of the results obtained from the test and is not to be construed as a Warranty or Warranty of the condition of the materials tested. Tensile Testing shall not be held liable for misinterpretation of conditions, loss, damage, injury or death arising from or attributable to delay preceding a test or subsequent to performance of a test.

CERTIFICATION OF PROCESS

BRITE METAL, INC.
8640 BESSEMER AVENUE
CLEVELAND, OHIO 44127

CUSTOMER: AIRFASCO INDUSTRIES, INC.

2655 Harrison Ave. SW

Canton, OH 44706

THIS IS TO CERTIFY THAT BRITE METAL, INC. HAS PROCESSED THE
FOLLOWING MATERIAL TO MIL-H-6875, H IN ACCORDANCE WITH THE MOST
WIDELY ACCEPTED METALLURGICAL PROCEDURE.

AFC P.O. NO. - 17359

WEIGHT 2,289 lbs.

NO. PCS - 30,170

DESCRIPTION - AN4-51A

LOT NO. - 14474

HEAT NO. - A85463

BM ORDER NO: B - 135362 Core Hardness Specifications: 28-31 RC

DATE RECEIVED - 5/14/07

DATE SHIPPED 7/24/07

HEAT TREATING TEST RESULTS

NUMBER OF SAMPLES - 6 prs

CORE HARDNESS - 29-31 RC

RECEIVED
JUL 25 2007

INSPECTOR Unith

DATE - 7/24/07

CERTIFICATE OF COMPLIANCE

Approved by Bruce Hogle
Revision Date: 3-9-04

SUPPLIER: **BERINGER PLATING, INC.**
1211 DeValera Ave.
Akron, OH 44310

CUSTOMER: Airfasco Industries, Inc.

Purchase Order Number 17808

Part Number AN4-51A Rev.

Lot Quantity 1,509 lbs

Specification Cadmium plate per QQ-P-416F w/amendment 3Ty II Cl 2

Coating thickness .0003"

Baking (if required) NA Hours at F

Inspection Level to applicable standard: ACC. X

S-3 of MIL.-STD.-105D: 4%

ASTM B602 Table II: 1.5%

Aircraft Braking System: 1%

Certified By:

James Beringer Jr.
James Beringer Jr.
President

Date: 8-2-07

RECEIVED
AUG 01 2007

45271

AIRFASCO Industries

2655 Harrison Avenue SW Canton, OH 44706

Nondestructive Testing Certification Wet Fluorescent Magnetic Particle Inspection Technique

Part Data

Part Number	Lot Number	Dimensions	Part Description
AN4-51A	14474	1/4-28 x 5 5/32	BOLT-MACHINE, AIRCRAFT

Reference Data

Specification	Procedure Number	Acceptance Criteria
ASTM E1444	MT-1	No Cracks, NASM 6812

Inspection Equipment Data

Model Number	Manufacturer	Serial Number
H-800 Retro	Magnaflux Corporation	91R00150

Inspection Material Data

Particles	Mfr	Batch No.	Carrier	Mfr	Batch No.
14A	Magnaflux	10G078	MG II	Magnaflux	14B056

Technique Data

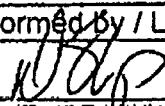
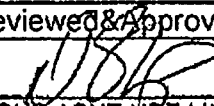
Type Current	Circular Field		Longitudinal Field	
	Headshot Amps	Central Conductor Amps	Coil shot Amps	Coil Turns
FWDC	170	N/A	420	5

Particle application by the flow method, continuous technique
Demagnetization performed by the AC Coil method, Residual field +/- 2

Inspection Results

Lot Size	Inspection Sample Size	Quantity accepted	Quantity rejected
19800	50	50	0

Notes:

Performed by / Level	Reviewed & Approved by:	Date
 D. SHOUP ASNT NDT LIII#176608	 D. SHOUP ASNT NDT LIII#176608	8/5/14

ECAS, LLC

CUSTOMS INVOICE

No: H999781

Package Details:

Deliver To:

Number of Pieces: Total Weight:	DART AEROSPACE LTD. ATTN: RECEIVING 1270 ABERDEEN STREET HAWKESBURY, ON K6A 1K7 CANADA
------------------------------------	--

Carrier	A/W Bill	Flight Number/Date	House A/W Bill
113- FX INT ECONOMY 151793240	665765288313		

Qty	Part No.	Description	Serial Number	Origin	Value	Ext Value	Cust. PO#
20	AN4-44A	BOLT UNDRILLED			USD \$0.860	\$17.200	PO35967
84	AN4-51A	BOLT UNDRILLED			USD \$3.100	\$260.400	PO35967
25	AN5-30A	BOLT UNDRILLED			USD \$0.600	\$15.000	PO35967
SPH-5-8							

Total: \$292.600

Home Total: \$292.600

The goods are supplied to you under the terms of your end-use.

I do hereby declare to the best of my knowledge the invoice to be true and correct.

Signed:

For and on behalf of ECAS, LLC

Inspectors Stamp

**PACKING SLIP**

INVOICE #: 599287
DATE PRINTED: 5/5/2017
TIME: 4:11:46 PM
OF ITEMS: 3
PAGE: 1

TO: DART AEROSPACE LTD.
ACCTS. PAYABLE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
CANADA

ATTN: CHANTAL LAVOIE
Ph: 613.632.3336 Fax: 613.632.5246

SHIP TO: DART AEROSPACE LTD.
ATTN: RECEIVING
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
CANADA

INVOICE DATE: 5/5/2017
ORDER DATE: 4/13/2017
SHIP DATE: 5/5/2017
SALES ORDER #: 530021
CUSTOMER #: 16754

TERMS: NET 30
CUST PO: PO35967
FOB: MELBOURNE, FL

WEIGHT:
OF BOXES:
SHIPMENT #: 0

SHIP VIA: 113- FX INT ECONOMY

AWB: 665765288313

YOUR MONROE ACCOUNT REP: Luis Sepulveda

ITEM	PART NUMBER/DESCRIPTION	SHIPPED	B/O	CD	UNIT PRICE	UOM
5	AN4-44A BOLT UNDRILLED	20.00	0.00	NE		
	MFR: AFC LOT: 13830 REV: 3					
6	AN4-51A BOLT UNDRILLED	84.00	0.00	NE		
	MFR: AFC LOT: 14474 REV: 3					
8	AN5-30A BOLT UNDRILLED	25.00	0.00	NE		
	MFR: AFC LOT: 11125 REV: 1					
	Control #: 154493-3					

SP17-58

SPECIAL INSTRUCTIONS:

We Thank You For Your Continued Business!

MONROE TAX ID: 47-3784072

ECAS, LLC dba MONROE AEROSPACE

399 EAST DRIVE MELBOURNE, FL 32904 PH: 800.330.3975 FAX: 321.727.7331



MONROE TAX ID: 47-3784072

Invoice

INVOICE #: 599287
DATE PRINTED: 5/5/2017
TIME: 4:11:28 PM
OF ITEMS: 3
PAGE: 1

TO: DART AEROSPACE LTD.
ACCTS. PAYABLE
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
CANADA

ATTN: CHANTAL LAVOIE
Ph: 613.632.3336 Fax: 613.632.5246

SHIP TO: DART AEROSPACE LTD.
ATTN: RECEIVING
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
CANADA

INVOICE DATE: 5/5/2017 TERMS: NET 30 WEIGHT: SHIP VIA: 113- FX INT ECONOMY
ORDER DATE: 4/13/2017 CUST PO: PO35967 # OF BOXES: # OF ITEMS: 3
SHIP DATE: 5/5/2017 FOB: MELBOURNE, FL SHIPMENT #: 0
SALES ORDER #: 530021 YOUR MONROE ACCOUNT REP: Luis Sepulveda
CUSTOMER #: 16754 AWB: 665765288313

ITEM	PART NUMBER/DESCRIPTION	SHIPPED	B/O	CD	UNIT PRICE	UOM	TOTAL AMT
5	AN4-44A BOLT UNDRILLED ECCN#: 9A991 SCHB#: 7318.15.2000 MFR: AFC LOT:13830 REV: 3	20.00	0.00	NE	0.8600	EA	\$17.200
6	AN4-51A BOLT UNDRILLED ECCN#: 9A991 SCHB#: 7318.15.2000 MFR: AFC LOT:14474 REV: 3	84.00	0.00	NE	3.1000	EA	\$260.400
8	AN5-30A BOLT UNDRILLED ECCN#: 9A991 SCHB#: 7318.15.2000 MFR: AFC LOT:11125 REV: 1	25.00	0.00	NE	0.6000	EA	\$15.000

*** Order Not Complete ***

82758

SPECIAL INSTRUCTIONS:

We Thank You For Your Continued Business!

SUB TOTAL:	\$292.600
TAX TOTAL:	\$0.000
MISC CHARGE:	\$0.000
FREIGHT:	\$0.000
TOTAL:	\$292.60
	USD

ECAS, LLC dba MONROE AEROSPACE

399 EAST DRIVE MELBOURNE, FL 32904 PH: 800.330.3975 FAX: 321.727.7331

**2655 Harrison Ave. SW
Canton, Ohio 44706-3047
Phone: 330-430-6190
Fax: 330-430-6199**

CERTIFICATE OF CONFORMANCE

ECAS

I Hereby Certify that on **04/25/17** Airfasco Industries provided the supplies called for by Contract/ PO Number **FL79288** in accordance with all applicable requirements for shipment. I further state that the process certifications are in conformance with the contract requirements, including specifications and/or drawings, physical item identification (part number) and the quantity shown on this or attached acceptance document. The part numbers certified below have been manufactured in the United States. DFAR 252.225-7009 compliant in fastener base raw material melt source only, with heat number and country, does not include the post cadmium metal plating.

Quality Assurance Representative


WM. DENT

[illegible]



2655 Harrison Ave. SW
Canton, Ohio 44706-3047
Phone: 330-430-6190
Fax: 330-430-6199

PHYSICAL AND CHEMICAL CERTIFICATION

DATE MFG.: 01/28/05 PART NO.: AN5-30A per NASM5-30A rev. 1
AFC LOT NO.: 11125 QTY MFG.: 31.233
PROCUREMENT SPECIFICATION: Produced per NASM 6812

HEAT TREAT

VENDOR: USA Heat Treat CERTIFICATION NO.: 82547
PROCUREMENT SPECIFICATION: Heat Treat per MIL-H-6875 H

PLATING

VENDOR: Beringer Plating CERTIFICATION NO.: 33425
PROCUREMENT SPECIFICATION: Cadmium Plate per QQ-P-416, Type II, Class 2, F

MATERIAL

MILL: Republic COUNTRY OF MELT: USA HEAT: 7280171
GRADE SPECIFICATION: Alloy Steel per AMS 6300 E, Type 4037, .328"

4037 MATERIAL CHEMISTRY											
ELEMENT-ID.	-C-	-MN-	-P-	-S-	-SI-	-NI-	-CR-	-MO-	-CU-	-AL-	Other
LADLE	.370	.790	.009	.006	.250	.030	.080	.220	.020	.033	

PHYSICAL PROPERTIES				
PHYSICAL	TENSILE	YIELD	SHEAR	HARDNESS
REQUIRED	6,500 lbs.	4,980 lbs.	5,750 lbs.	HRC 26-32
ACTUAL	8,298 lbs.	7,900 lbs.	6,301 lbs.	HRC 30-31

We hereby certify that the above data is correct and that the fasteners have been manufactured and inspected in accordance with Airfasco Industries quality requirements.

Airfasco Industries
Quality Assurance Representative:


T. West

PCS CUYAHOGA, L.L.C.
31000 COLON ROAD
COLON, OHIO

MATERIAL CERTIFICATION

DATE: May 26, 2004

SLIP NO: 00001

Sold to: **23**
AIRPASCO INDUSTRIES
2655 HARRISON AVE SW
CANTON OH 44705-3047

Ship to:
AIRPASCO INDUSTRIES
2655 HARRISON AVE. S.W.
CANTON OH 44705-3047

ALL CHEMISTRY DATA IS CERTIFIED BY THE HOT ROLL SUPPLIER.
WHEN ELEMENT CONTENTS ARE REPORTED AS ZERO, ACTUAL CONTENTS
MAY EQUAL ZERO OR WERE NOT REPORTED BY THE HOT ROLL MILL.

Crst No.	Customer P.O. No.	Ship Date	Ship Via	P.O.B.
1030/00	34924	5/06/04	CUST TRUCK COIL	COLON

Crst Order NO.	Order Date	Sales Rep	Qty. Shipped
29360/	12/11/03	07	38,580.00

Item Description: 21/64"R SAROD, PHOS POLY COIL 4037 0.3291RAIRCL1

Heat# 7230171

CHEMICAL ANALYSIS

C	NR	P	S	PB	SI	CT	NI	Kc
.370	.790	.009	.006		.260	.030	.030	.220
V	AI	CU	SN	TE	BI	SE	OB	
.001	.023	.020	.001				.001	
N	DI (In)							
.0043								

MECHANICAL PROPERTIES

*****Structure	*****Hardness	YS-.2% OFF-PSI	Tensile ST. PSI	*****Elongation
100% SPH			70500	
***X Red.-Area	***Carbon Free	***D.A.D Decarb	MET. Approved	
68	.000	.003	STEVE BRYNER	

MATERIAL INFORMATION

HOT MILL	REDUCT. RATIO	CAST METHOD	GRAIN PRACTICE	ORIG MET SEC
REPUBLIC		BILLET	FINE	REPUBLIC

COMMENTS:

04/30/04 SB SAC/ROD

RECEIVED

MAY 07 2004

Gordon



A DIVISION OF J. J. ADAMS CO., INC.

4520 WILLOW PARKWAY
CLEVELAND, OHIO 44124
PHONE (216) 641-3290
FAX (216) 641-1223
www.tensile.com

Airfasco Industries Inc.
2655 Harrison Ave. SW
Canton OH 44706

Job No.: B4-237-326
Date: 8-27-14
Cust. PO#: 61206

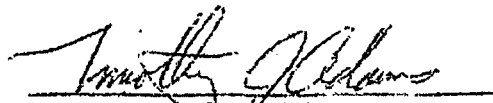
Description: 1 sample Mill: Republic Country of Melt: USA
Material: 4037 Heat# 7280171
Spec: AMS 6300E

----- TEST RESULTS -----

Product Analysis of Elements in % (OES per TTML C-011):

	<u>Actual</u>	<u>Requirements</u>
Carbon	0.35	0.35-0.40
Manganese	0.80	0.70-0.90
Phosphorus	0.009	0.040 Max.
Sulfur	0.005	0.040 Max.
Silicon	0.25	0.15-0.35
Chromium	0.08	0.20 Max.
Nickel	0.03	0.25 Max.
Molybdenum	0.22	0.20-0.30
Columbium	0.002	N/A
Aluminum	0.035	N/A
Copper	0.02	0.35 Max.
Vanadium	0.001	N/A
Titanium	0.002	N/A

The above conforms to specifications listed.


Authorized Agent



Page 1 of 1

This Report May Not Be Reproduced Except In Full

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USA HEAT TREATING INC..
4500 LEE ROAD, CLEVELAND OH 44128
(216) 587-4700 FAX: (216) 587-0707

SO#: 82547
Date Recieved: 1/12/2005
P.O.: 37046

CERTIFICATION

Customer AIRFASCO INDUS

Description BOLT, AN

Part Number: AN5-30A

Containers: 3 Bins

Weight 2269

Material: 4037

Type Of heat Treatment: Neutral Harden

RC 28-32

Customer Specifications: NEW PART CERTS

LOT # 11125

BIN # 1121-1091-1094

Test Results:

RC 31.8-30.9-30.8-30.7-30.5-31.3-31.9-31.7-31.3-31.9-31.5-31.6

31.3-31.9-31.4-31.6-31.5-31.2

30N 50-51-50-51-51

The above order has been processed and inspected. All samples tested were within the above stated results.

Tested By:

DELANEY

Approved quality technician

Date 1/14/2005

BY: Quality Control

CERTIFICATE OF COMPLIANCE

Approved by Bruce Ho.
Revision Date: 3-9-

SUPPLIER: BERINGER PLATING, INC.
1211 DeValera Ave.
Akron, OH 44310

CUSTOMER: Airfasco Industries

Purchase Order Number 37076

Part Number AN5-30A Rev.

Lot Quantity 2,269 lbs.

Specification Cad/QQ-P-416F Amendment 3 Ty 2 Cl 2

Coating thickness .0003"

Baking (if required) N/A Hours at F

Inspection Level to applicable standard: ACC. X

S-3 of MIL.-STD.-105D: 4 %

ASTM B602 Table II: 1.50%

Aircraft Braking System: 1%

Certified By: 

James Beringer Jr.
President

Date: 1/28/05

33425

Gordon

AIRFASCO Industries

2655 Harrison Avenue SW Canton, OH 44706

Nondestructive Testing Certification Wet Fluorescent Magnetic Particle Inspection Technique

Part Data

Part Number	Lot Number	Dimensions	Part Description
AN5-30A	11125	5/16-24 X 3 3/32	BOLT-MACHINE, AIRCRAFT

Reference Data

Specification	Procedure Number	Acceptance Criteria
ASTM E1444	MT-1	No Cracks, NASM 6812

Inspection Equipment Data

Model Number	Manufacturer	Serial Number
H-800 Retro	Magnaflux Corporation	91R00150

Inspection Material Data

Particles	Mfr	Batch No.	Carrier	Mfr	Batch No.
14A	Magnaflux	10G078	MG II	Magnaflux	14B056

Technique Data

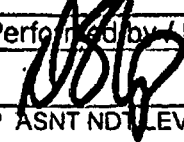
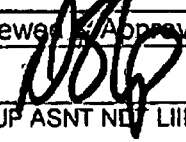
Type Current	Circular Field		Longitudinal Field	
	Headshot Amps	Central Conductor Amps	Coil shot Amps	Coil Turns
FWDC	200	N/A	850	5

Particle application by the flow method, continuous technique
Demagnetization performed by the AC Coil method, Residual field +/- 3

Inspection Results

Lot Size	Inspection Sample Size	Quantity accepted	Quantity rejected
33003	50	50	0

Notes:

Performed by / Level	Reviewed / Approved by:	Date
 D. SHOUP ASNT NDT LEVEL III	 D. SHOUP ASNT NDT LIII #176608	10/22/14



2655 Harrison Ave. SW
Canton, Ohio 44706-3047
Phone: 330-430-6190
Fax: 330-430-6199

PHYSICAL AND CHEMICAL CERTIFICATION

DATE MFG.: 08/12/15 PART NO.: AN4C15 per NASM4C15 rev. 3
AFC LOT NO.: 25587 QTY MFG.: 248
PROCUREMENT SPECIFICATION: Produced per NASM 6812

HEAT TREAT

VENDOR: Bodycote CERTIFICATION NO.: 38-24513 (17058)
PROCUREMENT SPECIFICATION: Heat Treat per AMS-H-6875

PLATING

VENDOR: AFC CERTIFICATION NO.: 15-25587
PROCUREMENT SPECIFICATION: Passivate per AMS 2700, Method 2, QQ-P-35

MATERIAL

MILL: Carpenter COUNTRY OF MELT: USA HEAT: 554452
GRADE SPECIFICATION: Stainless Steel per MIL-S-18732, AMS 5628 F, Type 431 SS, .243"

431 SS MATERIAL CHEMISTRY

ELEMENT-ID.	-C-	-MN-	-P-	-S-	-SI-	-NI-	-CR-	-MO-	-CU-	-Other-	Other
LADLE	.150	.610	.016	.003	.570	1.71	16.16	.030	.050		

PHYSICAL PROPERTIES

PHYSICAL	TENSILE	YIELD	SHEAR	HARDNESS
REQUIRED	4,080 lbs.	3,130 lbs.	3,680 lbs.	HRC 26-32
ACTUAL	6,023 lbs.	4,968 lbs.	4,155 lbs.	HRC 30-31

We hereby certify that the above data is correct and that the fasteners have been manufactured and inspected in accordance with Airfasco Industries quality requirements.

QS-082
REV 0
2/15

Airfasco Industries
Quality Assurance Representative:

T. West
T. West

CERTIFICATE OF TESTS
ABNAHMEPRUEFZEUGNIS
CERTIFICAT DE CONTROL

CERT SERIAL# 000649702


CARPENTER

 Carpenter Technology Corporation
 101 West Bern Street, Reading, Pa. 19601
 Tel: (610) 208-2000 (800) 338-4592

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

06/25/08

CUSTOMER/BESTELLER/CLIENT

SELER/VERKAUFER/VENDEUR PAGE 1 OF 2

AIRFASCO INDUSTRIES INC

 2655 HARRISON AVE SW
 CANTON OH 44706

DUN

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
40773	W90405	06/25/08	3584.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 554452

 PRODUCT DESCRIPTION: TYPE 431 ANNEALED SEAM FREE CF WIRE FOR HEADING CL R2
 ----- KNIGHTCOTE/SOAP

SPECIFICATION: AMS 5628 (REFFIRMED) REV F (10/ /06)

SIZE 0.243000 IN. (6.17 MM) RD WIRE

PRIMARY HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.15	0.61	0.57	0.016	0.003	16.16
NI (XRF)	MO (XRF)	CU (XRF)	N (FUS)		
1.71	0.03	0.05	0.05		

THIS MATERIAL CONFORMS TO THE TECHNICAL REQUIREMENTS OF THE AMS SPECIFICATION REFERENCED ABOVE.

DISCS MACROETCHED AND APPROVED

TENSILE AS SHIPPED, KSI (MPA) 104.0 (717)

CAPABILITY

 1875 F (1024 C), 30 MIN OIL TREAT
 1175 F (635 C), 03 HR AIR COOL

RETAINED AUSTENITE - NONE (VILELLAS)

MICROSTRUCTURE - FERRITE 1.00% (VILELLAS)

GRAIN SIZE PER ASTM E112: 7 (VILELLAS)

TO ENTER
IN
SYSTEM
6/26/08
Gm

CONTINUED ON NEXT PAGE

CERTIFICATE OF TESTS

ABNAHMEPRUEFZEUGNIS

CERTIFICATE

CERT SERIAL# 000649702



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

06/25/08

CUSTOMER/BESTELLER/CLIENT

SELLER/VERKAUFER/VEHDEURPAGE 2 OF 2

AIRFASCO INDUSTRIES INC

2655 HARRISON AVE SW
CANTON OH 44706

DUN

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERIE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
40773	W90405	06/25/08	3584.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE :

554452

CAPABILITY

1875 F(1024 C), 01 HR
-100 F(-73 C), 02 HR
WARM TO ROOM TEMPERATURE.
550 F(288 C), 02 HR
550 F(288 C), 02 HR

OIL TREAT

AIR COOL
AIR COOL

YIELD STRENGTH, (0.20 %) KSI (MPA) 153.0 (1055)
TENSILE STRENGTH, KSI (MPA) 216.0 (1489)
ELONGATION IN 2.00", % 16.0
REDUCTION OF AREA, % 56.0

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.
MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIRE-
MENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1.
CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO
THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 07-0869 BY PERFORMANCE
REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH
3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE
IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

MARGARET A TURNER
MET RELEASE/REQUIREMENTS ANALYST
CARPENTER TECHNOLOGY CORPORATION

Margaret R. Turner

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die vorgetragenen Daten oder Zertifizierungen.
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce document. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.



BODYCOTE THERMAL PROCESSING . 5475 AVION PARK DRIVE . HIGHLAND HEIGHTS . OHIO 44143
TEL 440.473.2020 . FAX 440.473.0047 . www.bodycote.com

Cert No. 38-24513



Certified: 5/18/09

Bill To

Ship To

Airfasco Industries, Inc.
2655 Harrison Ave. SW
Canton, OH 44706

Ship To: 38-117500-117500
Airfasco Industries, Inc.
2655 Harrison Ave. SW
Canton, OH 44706

We are pleased to submit our CERTIFICATION OF HEAT TREATMENT of the following:

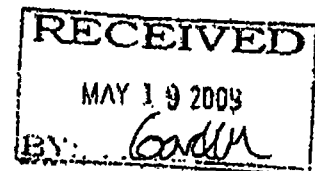
Order No 118448	PO Number 21461	PL Number	Received 5/13/09
Requirements			Value
Surface Hardness Min (HRC)			28.0
Surface Hardness Max (HRC)			31.0
Qty 25900	Wgt 712	Part No. AN4C15A	Part Name Lot 17058
Part Description Heat treat per AMS-H-6875A, po and print			Material 431
25900	712	Total	

We hereby certify that the parts described above were given the Heat Treatment prescribed by the customer, and that temperatures and test results were obtained with standard approved methods.

Recorded Values	Value
Surface Hardness Min (HRC)	30.0
Surface Hardness Max (HRC)	31.0

The above information was determined either by sampling an actual part or an appropriate test piece. The sample is representative of the entire order identified above. This sample was found to conform to all stated heat treat specifications.
Pertinent data will be kept on file for 7 years.

Bodycote - Highland Heights, Ohio.
Certified: 5/18/09
By: Danni Harvey Quality Representative



AIRFASCO Industries

2655 Harrison Avenue SW Canton, OH 44706

Nondestructive Testing Certification Wet Fluorescent Magnetic Particle Inspection Technique

Part Data

Part Number	Lot Number	Dimensions	Part Description
AN4C15	25587	.2500-28 x 1.656	BOLT-MACHINE, AIRCRAFT

Reference Data

Specification	Procedure Number	Acceptance Criteria
ASTM E1444	MT-1	No Cracks, NASM 6812

Inspection Equipment Data

Model Number	Manufacturer	Serial Number
H-800 Retro	Magnaflux Corporation	91R00150

Inspection Material Data

Particles	Mfr	Batch No.	Carrier	Mfr	Batch No.
14A	Magnaflux	10G078	MG II	Magnaflux	14B056

Technique Data

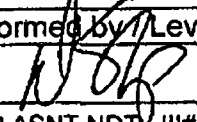
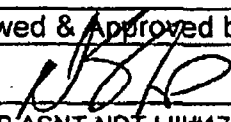
Type Current	Circular Field		Longitudinal Field	
	Headshot Amps	Central Conductor Amps	Coil shot Amps	Coil Turns
FWDC	180	N/A	1230	5

Particle application by the flow method, continuous technique
Demagnetization performed by the AC Coil method, Residual field +/- 2

Inspection Results

Lot Size	Inspection Sample Size	Quantity accepted	Quantity rejected
248	13	13	0

Notes:

Performed by/Level	Reviewed & Approved by:	Date
 D. SHOUP ASNT NDT LIII#176608	 D. SHOUP ASNT NDT LIII#176608	8/12/15